

45--Maddock Soils, 0 To 2 Percent Slopes

Component Description

Maddock and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Rise on beach plain

Rise on lake plain

Slope range: 1 to 2 percent

Surface layer texture: Loamy fine sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Ponding: None

Available water capacity to a depth of 60 inches: 5.7 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

H1--0 to 16 inches; loamy fine sand

H2--16 to 60 inches; fine sand

46--Borup Loam

Component Description

Borup and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Swale on lake plain

Flat on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.0 feet April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet January February March August

September October November

December

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 10 inches; loam

H2--10 to 19 inches; very fine sandy loam

H3--19 to 60 inches; very fine sand

47--Colvin Silty Clay Loam

Component Description

Colvin and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Slope range: 0 to 1 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.8 foot March April May June July

Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet      January February August  
                                 September October November  
                                 December

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

H1--0 to 12 inches; silty clay loam

H2--12 to 18 inches; silt loam

H3--18 to 60 inches; silt loam

## 50--Cashel Clay

### Component Description

Cashel and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Rise on stream terrace

Flat on stream terrace

Slope range: 0 to 2 percent

Surface layer texture: Clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding does not occur (months):

January February June July August September October

November December

Flooding is most likely (frequency, months):

Occasional      March April May

Wet soil moisture status is highest (depth, months):

3.0 feet      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet      January February March August

September October November

December

Ponding: None

Available water capacity to a depth of 60 inches: 9.2 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 12 inches; clay

H2--12 to 60 inches; clay

## 52--Augsburg Soils

### Component Description

Augsburg and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 1 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.0 feet      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet      January February March August

September October November

December

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 4.4 percent

Typical profile:

- H1--0 to 8 inches; very fine sandy loam
- H2--8 to 18 inches; very fine sandy loam
- H3--18 to 33 inches; loamy very fine sand
- H4--33 to 60 inches; clay

59--Grimstad Soils, 0 To 2 Percent Slopes

Component Description

Grimstad and similar soils

Extent: 100 percent of the unit

Geomorphic description:

- Rise on lake plain
- Flat on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.8 feet                      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 7.9 inches

Content of organic matter in the upper 10 inches: 2.7 percent

Typical profile:

- H1--0 to 8 inches; fine sandy loam
- H2--8 to 38 inches; fine sand
- H3--38 to 60 inches; loam

60--Glyndon Soils, 0 To 2 Percent Slopes

Component Description

Glyndon and similar soils

Extent: 100 percent of the unit

Geomorphic description:

- Flat on lake plain
- Rise on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

3.2 feet                      April May June

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              January February March July  
August September October  
November December

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

- H1--0 to 22 inches; very fine sandy loam
- H2--22 to 35 inches; loamy very fine sand
- H3--35 to 60 inches; very fine sand

61--Arveson Soils

#### Component Description

##### Arveson and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Swale on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Sandy clay loam  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    1.0 feet                      April May June July  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet              January February March August  
                                    September October November  
                                    December  
Ponding: None  
Available water capacity to a depth of 60 inches: 7.0 inches  
Content of organic matter in the upper 10 inches: 5.8 percent  
Typical profile:  
    H1--0 to 8 inches; sandy clay loam  
    H2--8 to 15 inches; fine sandy loam  
    H3--15 to 60 inches; fine sand

#### 63--Rockwell Soils

#### Component Description

##### Rockwell and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Swale on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Fine sandy loam  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    1.0 feet                      April May June July  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet              January February March August  
                                    September October November  
                                    December  
Ponding: None  
Available water capacity to a depth of 60 inches: 8.7 inches  
Content of organic matter in the upper 10 inches: 5.6 percent  
Typical profile:  
    H1--0 to 9 inches; fine sandy loam  
    H2--9 to 16 inches; fine sandy loam  
    H3--16 to 36 inches; fine sand  
    H4--36 to 60 inches; loam

#### 64--Ulen Soils, 0 To 2 Percent Slopes

#### Component Description

##### Ulen and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Rise on lake plain

Slope range: 0 to 2 percent  
Surface layer texture: Fine sandy loam  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Moderately well drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    3.2 feet                      April May June July  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet          January February March August  
                                 September October November  
                                 December  
Ponding: None  
Available water capacity to a depth of 60 inches: 5.6 inches  
Content of organic matter in the upper 10 inches: 3.5 percent  
Typical profile:  
    H1--0 to 15 inches; fine sandy loam  
    H2--15 to 20 inches; loamy fine sand  
    H3--20 to 60 inches; fine sand

65--Foxhome Soils, 0 To 2 Percent Slopes

Component Description

Foxhome and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Sandy loam  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Moderately well drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    3.2 feet                      January February March April May  
                                 June October November December  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet          July August September  
Ponding: None  
Available water capacity to a depth of 60 inches: 7.9 inches  
Content of organic matter in the upper 10 inches: 5.0 percent  
Typical profile:  
    H1--0 to 11 inches; sandy loam  
    H2--11 to 15 inches; gravelly loamy sand  
    H3--15 to 36 inches; gravelly sand  
    H4--36 to 60 inches; fine sandy loam

67--Bearden Silt Loam, 0 To 2 Percent Slopes

Component Description

Bearden and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Silt loam  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Somewhat poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    2.8 feet                      April May June  
Wet soil moisture status is lowest (depth, months):

More than 6.0 feet	January	February	March	July
	August	September	October	
	November	December		

Ponding: None

Available water capacity to a depth of 60 inches: 11.7 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

H1--0 to 10 inches; silt loam  
H2--10 to 14 inches; silt loam  
H3--14 to 23 inches; silt loam  
H4--23 to 60 inches; silty clay loam

#### 77--Garnes Soils, 0 To 2 Percent Slopes

##### Component Description

Garnes and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Rise on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

4.3 feet	April	May	June
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Wet soil moisture status is lowest (depth, months):

More than 6.0 feet	January	February	March	July
	August	September	October	
	November	December		

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

H1--0 to 6 inches; loam  
H2--6 to 10 inches; sandy clay loam  
H3--10 to 60 inches; sandy loam

#### 93--Bearden Silty Clay Loam, 0 To 2 Percent Slopes

##### Component Description

Bearden and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Rise on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.8 feet	April	May	June
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Wet soil moisture status is lowest (depth, months):

More than 6.0 feet	January	February	March	July
	August	September	October	
	November	December		

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

H1--0 to 10 inches; silty clay loam

H2--10 to 14 inches; silty clay loam  
H3--14 to 23 inches; silt loam  
H4--23 to 60 inches; silty clay loam

93B--Bearden Silty Clay Loam, 2 To 6 Percent Slopes

Component Description

Bearden and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Rise on lake plain

Slope range: 2 to 6 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.8 feet April May June

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet January February March July

August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

H1--0 to 10 inches; silty clay loam

H2--10 to 14 inches; silty clay loam

H3--14 to 23 inches; silt loam

H4--23 to 60 inches; silty clay loam

111--Hangaard Soils

Component Description

Hangaard and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Swale on beach plain

Flat on beach plain

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.0 feet April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet January February March August

September October November

December

Ponding: None

Available water capacity to a depth of 60 inches: 2.4 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

H1--0 to 7 inches; sandy loam

H2--7 to 60 inches; gravelly sand

116--Redby Soils, 0 To 2 Percent Slopes

Component Description

Redby and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Loamy fine sand  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Somewhat poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    2.3 feet                      April May June July  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet          January February March August  
                                 September October November  
                                 December  
Ponding: None  
Available water capacity to a depth of 60 inches: 4.9 inches  
Content of organic matter in the upper 10 inches: 0.7 percent  
Typical profile:  
    H1--0 to 4 inches; loamy fine sand  
    H2--4 to 33 inches; fine sand  
    H3--33 to 60 inches; fine sand

#### 117--Cormant Soils

##### Component Description

###### Cormant and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Swale on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Loamy fine sand  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    1.5 feet                      April May June July  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet          January February March August  
                                 September October November  
                                 December  
Ponding: None  
Available water capacity to a depth of 60 inches: 4.9 inches  
Content of organic matter in the upper 10 inches: 3.9 percent  
Typical profile:  
    H1--0 to 6 inches; loamy fine sand  
    H2--6 to 60 inches; fine sand

#### 145--Enstrom Loamy Fine Sand, 0 To 2 Percent Slopes

##### Component Description

###### Enstrom and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Loamy fine sand  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Moderately well drained  
Flooding: None



Wet soil moisture status is highest (depth, months):  
3.7 feet April May June July  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet January February March August  
September October November  
December

Ponding: None  
Available water capacity to a depth of 60 inches: 7.7 inches  
Content of organic matter in the upper 10 inches: 1.9 percent  
Typical profile:  
H1--0 to 8 inches; loamy fine sand  
H2--8 to 33 inches; fine sand  
H3--33 to 60 inches; loam

148--Poppleton Soils, 0 To 2 Percent Slopes

Component Description

Poppleton and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Flat on lake plain  
Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Loamy fine sand  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Moderately well drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
3.0 feet January February March April May  
June November December  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet July August September October  
Ponding: None  
Available water capacity to a depth of 60 inches: 5.0 inches  
Content of organic matter in the upper 10 inches: 1.3 percent  
Typical profile:  
H1--0 to 6 inches; loamy fine sand  
H2--6 to 60 inches; fine sand

157--Wahpeton Silty Clay 0 To 2 Percent Slopes

Component Description

Wahpeton and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Rise on stream terrace  
Flat on stream terrace  
Slope range: 0 to 2 percent  
Surface layer texture: Silty clay  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Moderately well drained  
Flooding does not occur (months):  
January February July August September October November  
December  
Flooding is most likely (frequency, months):  
Occasional March April May June  
Ponding: None  
Available water capacity to a depth of 60 inches: 9.1 inches  
Content of organic matter in the upper 10 inches: 6.0 percent  
Typical profile:  
H1--0 to 15 inches; silty clay  
H2--15 to 60 inches; silty clay

157B--Wahpeton Silty Clay, 2 To 6 Percent Slopes

Component Description

Wahpeton and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Rise on stream terrace

Slope range: 2 to 6 percent

Surface layer texture: Silty clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding does not occur (months):

January February July August September October November  
December

Flooding is most likely (frequency, months):

Occasional

March April May June

Ponding: None

Available water capacity to a depth of 60 inches: 9.1 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 15 inches; silty clay

H2--15 to 60 inches; silty clay

187--Haug Muck

Component Description

Haug and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression on lake plain

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status: At the surface all year

Ponding: At 0.5 foot all year

Available water capacity to a depth of 60 inches: 12.0 inches

Content of organic matter in the upper 10 inches: 70.0 percent

Typical profile:

H1--0 to 11 inches; muck

H2--11 to 14 inches; mucky sandy loam

H3--14 to 60 inches; loam

205--Karlstad Soils, 0 To 2 Percent Slopes

Component Description

Karlstad and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Rise on beach ridge

Flat on beach ridge

Slope range: 0 to 2 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

3.2 feet

April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet      January February March August  
                                 September October November  
                                 December

Ponding: None

Available water capacity to a depth of 60 inches: 3.5 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

H1--0 to 10 inches; loamy sand

H2--10 to 12 inches; gravelly fine sandy loam

H3--12 to 18 inches; gravelly loamy sand

H4--18 to 60 inches; stratified gravelly coarse sand to loamy  
fine sand

#### 242--Marquette Soils, 0 To 2 Percent Slopes

##### Component Description

Marquette and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Rise on beach ridge

Slope range: 0 to 2 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Flooding: None

Ponding: None

Available water capacity to a depth of 60 inches: 3.1 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

H1--0 to 9 inches; loamy sand

H2--9 to 14 inches; gravelly fine sandy loam

H3--14 to 60 inches; stratified fine sand to extremely gravelly  
coarse sand

#### 245--Lohnes Soils, 0 To 6 Percent Slopes

##### Component Description

Lohnes and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Rise on beach ridge

Slope range: 0 to 6 percent

Surface layer texture: Loamy sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Ponding: None

Available water capacity to a depth of 60 inches: 3.4 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

H1--0 to 9 inches; loamy sand

H2--9 to 13 inches; coarse sand

H3--13 to 60 inches; stratified gravelly coarse sand to fine sand

#### 280--Pelan Soils, 0 To 2 Percent Slopes

##### Component Description

Pelan and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Loamy sand  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Moderately well drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
4.3 feet April May June July  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet January February March August  
September October November  
December  
Ponding: None  
Available water capacity to a depth of 60 inches: 6.8 inches  
Content of organic matter in the upper 10 inches: 0.8 percent  
Typical profile:  
H1--0 to 6 inches; loamy sand  
H2--6 to 9 inches; sand  
H3--9 to 14 inches; gravelly sandy loam  
H4--14 to 32 inches; very gravelly coarse sand  
H5--32 to 60 inches; fine sandy loam

296--Fram Soils, 0 To 2 Percent Slopes

Component Description

Fram and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Flat on lake plain  
Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Fine sandy loam  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Somewhat poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
3.2 feet January February March April May  
June September October November  
December  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet July August  
Ponding: None  
Available water capacity to a depth of 60 inches: 10.1 inches  
Content of organic matter in the upper 10 inches: 6.1 percent  
Typical profile:  
H1--0 to 9 inches; fine sandy loam  
H2--9 to 60 inches; loam

343--Wheatville Soils, 0 To 2 Percent Slopes

Component Description

Wheatville and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Flat on lake plain  
Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Loam  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Moderately well drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):

3.2 feet                      April May June July  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet              January February March August  
                                    September October November  
                                    December

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

H1--0 to 13 inches; loam

H2--13 to 35 inches; very fine sandy loam

H3--35 to 60 inches; clay

### 379--Percy Bouldery Soils

#### Component Description

Percy and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Bouldery sandy clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.0 feet                      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              January February March August

September October November

December

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

H1--0 to 8 inches; bouldery sandy clay loam

H2--8 to 11 inches; sandy clay loam

H3--11 to 26 inches; loam

H4--26 to 60 inches; loam

### 383--Percy Soils, Calcareous Surface

#### Component Description

Percy and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Sandy clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.0 feet                      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              January February March August

September October November

December

Ponding: None

Available water capacity to a depth of 60 inches: 10.0 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

H1--0 to 8 inches; sandy clay loam  
H2--8 to 11 inches; sandy clay loam  
H3--11 to 26 inches; loam  
H4--26 to 60 inches; loam

384--Percy Soils, Depressional

Component Description

Percy and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Sandy clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.0 feet April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 10.0 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

H1--0 to 8 inches; sandy clay loam  
H2--8 to 11 inches; sandy clay loam  
H3--11 to 26 inches; loam  
H4--26 to 60 inches; loam

403--Viking Soils

Component Description

Viking and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Sandy clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.0 feet April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 7.4 inches

Content of organic matter in the upper 10 inches: 4.7 percent

Typical profile:

H1--0 to 9 inches; sandy clay loam  
H2--9 to 22 inches; clay  
H3--22 to 60 inches; clay

412--Mavie Soils

Component Description

Mavie and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Sandy clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.0 feet                      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 9.8 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

H1--0 to 10 inches; sandy clay loam

H2--10 to 14 inches; fine sandy loam

H3--14 to 22 inches; very gravelly coarse sand

H4--22 to 60 inches; loam

424--Augsburg Soils, Depressional

Component Description

Augsburg and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression on lake plain

Slope range: 0 to 1 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status: At the surface all year

Ponding: At 0.5 foot all year

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 8.5 percent

Typical profile:

H1--0 to 11 inches; very fine sandy loam

H2--11 to 18 inches; very fine sandy loam

H3--18 to 33 inches; loamy very fine sand

H4--33 to 60 inches; clay

425--Donaldson Soils, 0 To 2 Percent Slopes

Component Description

Donaldson and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Rise on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Very fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):  
4.3 feet April May June July  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet January February March August  
September October November  
December

Ponding: None  
Available water capacity to a depth of 60 inches: 8.5 inches  
Content of organic matter in the upper 10 inches: 4.2 percent  
Typical profile:  
H1--0 to 9 inches; very fine sandy loam  
H2--9 to 14 inches; loamy very fine sand  
H3--14 to 24 inches; loamy very fine sand  
H4--24 to 60 inches; clay

426--Foldahl Soils, 0 To 2 Percent Slopes

Component Description

Foldahl and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Flat on lake plain  
Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Fine sandy loam  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Moderately well drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
3.0 feet January February March April May  
June November December  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet July August September October  
Ponding: None  
Available water capacity to a depth of 60 inches: 8.8 inches  
Content of organic matter in the upper 10 inches: 3.3 percent  
Typical profile:  
H1--0 to 9 inches; fine sandy loam  
H2--9 to 28 inches; fine sand  
H3--28 to 34 inches; loam  
H4--34 to 60 inches; loam

427--Fram Soils, Leached, 0 To 3 Percent Slopes

Component Description

Fram and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Flat on lake plain  
Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Fine sandy loam  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Somewhat poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
3.2 feet January February March April May  
June September October November  
December  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet July August  
Ponding: None  
Available water capacity to a depth of 60 inches: 10.1 inches



Content of organic matter in the upper 10 inches: 6.1 percent

Typical profile:

H1--0 to 9 inches; fine sandy loam

H2--9 to 60 inches; loam

429--Northcote Clay, 0 To 2 Percent Slopes

Component Description

Northcote and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.0 feet April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 4.3 percent

Typical profile:

H1--0 to 9 inches; clay

H2--9 to 18 inches; clay

H3--18 to 60 inches; clay

429B--Northcote Clay, 2 To 6 Percent Slopes

Component Description

Northcote and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Rise on lake plain

Slope range: 2 to 6 percent

Surface layer texture: Clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.0 feet April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 4.3 percent

Typical profile:

H1--0 to 9 inches; clay

H2--9 to 18 inches; clay

H3--18 to 60 inches; clay

430--Noyes Soils

Component Description

Noyes and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Rise on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Sandy clay loam  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    2.0 feet                      April May June July  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet          January February March August  
                                 September October November  
                                 December  
Ponding: None  
Available water capacity to a depth of 60 inches: 8.7 inches  
Content of organic matter in the upper 10 inches: 4.5 percent  
Typical profile:  
    H1--0 to 13 inches; sandy clay loam  
    H2--13 to 60 inches; clay

432--Strandquist Soils

Component Description

Strandquist and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Swale on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Fine sandy loam  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    1.0 feet                      January February March April May  
                                 June November December  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet          July August September October  
Ponding: None  
Available water capacity to a depth of 60 inches: 8.5 inches  
Content of organic matter in the upper 10 inches: 4.0 percent  
Typical profile:  
    H1--0 to 10 inches; fine sandy loam  
    H2--10 to 20 inches; very gravelly sand  
    H3--20 to 60 inches; loam

433--Syrene Soils, Very Wet

Component Description

Syrene and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Depression on beach plain  
Slope range: 0 to 1 percent  
Surface layer texture: Sandy loam  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Very poorly drained  
Flooding: None

Wet soil moisture status: At the surface all year  
Ponding: At 0.5 foot all year  
Available water capacity to a depth of 60 inches: 3.0 inches  
Content of organic matter in the upper 10 inches: 6.0 percent  
Typical profile:  
H1--0 to 9 inches; sandy loam  
H2--9 to 60 inches; stratified loamy fine sand to gravelly coarse sand

#### 435--Syrene Soils

##### Component Description

Syrene and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Swale on beach plain  
Flat on beach plain  
Slope range: 0 to 2 percent  
Surface layer texture: Sandy loam  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
1.0 feet April May June July  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet January February March August  
September October November  
December  
Ponding: None  
Available water capacity to a depth of 60 inches: 3.0 inches  
Content of organic matter in the upper 10 inches: 5.1 percent  
Typical profile:  
H1--0 to 9 inches; sandy loam  
H2--9 to 60 inches; stratified loamy fine sand to gravelly coarse sand

#### 438--Northcote Clay, Depressional

##### Component Description

Northcote and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Depression on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Clay  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Very poorly drained  
Flooding: None  
Wet soil moisture status: At the surface all year  
Ponding: At 0.5 foot all year  
Available water capacity to a depth of 60 inches: 7.5 inches  
Content of organic matter in the upper 10 inches: 5.7 percent  
Typical profile:  
H1--0 to 9 inches; clay  
H2--9 to 18 inches; clay  
H3--18 to 60 inches; clay

#### 482--Grygla Soils

##### Component Description

Grygla and similar soils

Extent: 100 percent of the unit  
Geomorphic description:  
    Flat on lake plain  
    Swale on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Loamy fine sand  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    1.0 feet                      January February March April May  
                                    June July November December  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet          August September October  
Ponding: None  
Available water capacity to a depth of 60 inches: 8.4 inches  
Content of organic matter in the upper 10 inches: 1.8 percent  
Typical profile:  
    H1--0 to 6 inches; loamy fine sand  
    H2--6 to 29 inches; fine sand  
    H3--29 to 60 inches; loam

543--Markey Muck

Component Description

Markey and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
    Depression on lake plain  
    Bog on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Muck  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Very poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    At the surface              January February March April May  
                                    June November December  
Wet soil moisture status is lowest (depth, months):  
    More than 6.0 feet          July August September October  
Ponding: At 0.5 foot all year  
Available water capacity to a depth of 60 inches: 12.2 inches  
Content of organic matter in the upper 10 inches: 70.0 percent  
Typical profile:  
    H1--0 to 25 inches; muck  
    H2--25 to 60 inches; fine sand

544--Cathro Muck

Component Description

Cathro and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
    Depression on lake plain  
    Bog on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Muck  
Depth to restrictive feature:  
    Very deep (more than 60 inches)  
Drainage class: Very poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
    At the surface              January February March April May

June October November December  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet July August September  
Ponding: At 0.5 foot all year  
Available water capacity to a depth of 60 inches: 18.9 inches  
Content of organic matter in the upper 10 inches: 72.5 percent  
Typical profile:  
H1--0 to 15 inches; muck  
H2--15 to 34 inches; muck  
H3--34 to 60 inches; loam

547--Deerwood Muck

Component Description

Deerwood and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Depression on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Muck  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Very poorly drained  
Flooding: None  
Wet soil moisture status: At the surface all year  
Ponding: At 0.5 foot all year  
Available water capacity to a depth of 60 inches: 6.6 inches  
Content of organic matter in the upper 10 inches: 70.0 percent  
Typical profile:  
H1--0 to 10 inches; muck  
H2--10 to 12 inches; loamy sand  
H3--12 to 60 inches; sand

581--Percy Soils

Component Description

Percy and similar soils  
Extent: 100 percent of the unit  
Geomorphic description:  
Flat on lake plain  
Swale on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Sandy clay loam  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
1.0 feet April May June July  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet January February March August  
September October November  
December  
Ponding: None  
Available water capacity to a depth of 60 inches: 10.0 inches  
Content of organic matter in the upper 10 inches: 5.5 percent  
Typical profile:  
H1--0 to 8 inches; sandy clay loam  
H2--8 to 11 inches; sandy clay loam  
H3--11 to 26 inches; loam  
H4--26 to 60 inches; loam

582--Roliss Soils

Component Description

Roliss and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 1 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.0 feet                      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 4.8 percent

Typical profile:

H1--0 to 9 inches; clay loam

H2--9 to 16 inches; fine sandy loam

H3--16 to 26 inches; clay loam

H4--26 to 60 inches; loam

583--Nereson Soils, 0 To 2 Percent Slopes

Component Description

Nereson and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Flat on lake plain

Rise on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

3.0 feet                      January February March April May  
June November December

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              July August September October

Ponding: None

Available water capacity to a depth of 60 inches: 9.6 inches

Content of organic matter in the upper 10 inches: 3.3 percent

Typical profile:

H1--0 to 6 inches; fine sandy loam

H2--6 to 9 inches; fine sandy loam

H3--9 to 29 inches; loam

H4--29 to 60 inches; fine sandy loam

908--Bearden-Fargo Complex

Component Description

Bearden and similar soils

Extent: 65 percent of the unit

Geomorphic description:

Flat on lake plain

Rise on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Somewhat poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
2.8 feet April May June  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet January February March July  
August September October  
November December  
Ponding: None  
Available water capacity to a depth of 60 inches: 11.5 inches  
Content of organic matter in the upper 10 inches: 5.0 percent  
Typical profile:  
H1--0 to 10 inches; silty clay loam  
H2--10 to 14 inches; silty clay loam  
H3--14 to 23 inches; silt loam  
H4--23 to 60 inches; silty clay loam

Fargo and similar soils

Extent: 35 percent of the unit  
Geomorphic description:  
Flat on lake plain  
Swale on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Silty clay  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
1.0 feet March April May June July  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet January February August  
September October November  
December  
Ponding: None  
Available water capacity to a depth of 60 inches: 9.8 inches  
Content of organic matter in the upper 10 inches: 7.0 percent  
Typical profile:  
H1--0 to 18 inches; silty clay  
H2--18 to 41 inches; silty clay  
H3--41 to 60 inches; silty clay

937--Hegne-Northcote Complex

Component Description

Hegne and similar soils

Extent: 65 percent of the unit  
Geomorphic description:  
Flat on lake plain  
Slope range: 0 to 2 percent  
Surface layer texture: Silty clay  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Poorly drained  
Flooding: None  
Wet soil moisture status is highest (depth, months):  
1.0 feet April May June  
Wet soil moisture status is lowest (depth, months):  
More than 6.0 feet January February March July  
August September October  
November December  
Ponding: None  
Available water capacity to a depth of 60 inches: 8.1 inches  
Content of organic matter in the upper 10 inches: 4.8 percent

Typical profile:

H1--0 to 9 inches; silty clay  
H2--9 to 26 inches; silty clay  
H3--26 to 43 inches; silty clay  
H4--43 to 60 inches; silty clay

Northcote and similar soils

Extent: 35 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.0 feet                      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 4.3 percent

Typical profile:

H1--0 to 9 inches; clay  
H2--9 to 18 inches; clay  
H3--18 to 60 inches; clay

991--Northcote And Wahpeton Soils

Component Description

Northcote and similar soils

Extent: 35 percent of the unit

Geomorphic description:

Flat on lake plain

Swale on lake plain

Slope range: 0 to 2 percent

Surface layer texture: Clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.0 feet                      April May June July

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet              January February March August  
September October November  
December

Ponding: None

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 4.3 percent

Typical profile:

H1--0 to 9 inches; clay  
H2--9 to 18 inches; clay  
H3--18 to 60 inches; clay

Wahpeton and similar soils

Extent: 20 percent of the unit

Geomorphic description:

Rise on stream terrace

Slope range: 0 to 2 percent

Surface layer texture: Silty clay

Depth to restrictive feature:

Very deep (more than 60 inches)



Drainage class: Moderately well drained  
Flooding does not occur (months):  
January February July August September October November  
December  
Flooding is most likely (frequency, months):  
Occasional March April May June  
Ponding: None  
Available water capacity to a depth of 60 inches: 9.1 inches  
Content of organic matter in the upper 10 inches: 6.0 percent  
Typical profile:  
H1--0 to 15 inches; silty clay  
H2--15 to 60 inches; silty clay

993--Arveson And Cormant Soils, Depressional

Component Description

Arveson and similar soils

Extent: 50 percent of the unit  
Geomorphic description:  
Depression on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Sandy clay loam  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Very poorly drained  
Flooding: None  
Wet soil moisture status: At the surface all year  
Ponding: At 0.5 foot all year  
Available water capacity to a depth of 60 inches: 7.0 inches  
Content of organic matter in the upper 10 inches: 6.6 percent  
Typical profile:  
H1--0 to 8 inches; sandy clay loam  
H2--8 to 15 inches; fine sandy loam  
H3--15 to 60 inches; fine sand

Cormant and similar soils

Extent: 50 percent of the unit  
Geomorphic description:  
Depression on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Loamy fine sand  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Very poorly drained  
Flooding: None  
Wet soil moisture status: At the surface all year  
Ponding: At 0.5 foot all year  
Available water capacity to a depth of 60 inches: 4.9 inches  
Content of organic matter in the upper 10 inches: 7.6 percent  
Typical profile:  
H1--0 to 6 inches; loamy fine sand  
H2--6 to 60 inches; fine sand

994--Rockwell And Grygla Soils, Depressional

Component Description

Grygla and similar soils

Extent: 50 percent of the unit  
Geomorphic description:  
Depression on lake plain  
Slope range: 0 to 1 percent  
Surface layer texture: Loamy fine sand  
Depth to restrictive feature:  
Very deep (more than 60 inches)  
Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface                      January February March April May  
   June July November December

Wet soil moisture status is lowest (depth, months):

More than 6.0 feet                      August September October

Ponding: At 0.2 foot all year

Available water capacity to a depth of 60 inches: 8.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

H1--0 to 11 inches; loamy fine sand

H2--11 to 29 inches; fine sand

H3--29 to 60 inches; loam

Rockwell and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Depression on lake plain

Slope range: 0 to 1 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status: At the surface all year

Ponding: At 0.5 foot all year

Available water capacity to a depth of 60 inches: 9.8 inches

Content of organic matter in the upper 10 inches: 5.6 percent

Typical profile:

H1--0 to 9 inches; fine sandy loam

H2--9 to 16 inches; fine sandy loam

H3--16 to 28 inches; fine sand

H4--28 to 60 inches; loam

#### 1002--Alluvial Land, Frequently Flooded

##### Component Description

Alluvial land, frequently flooded

Extent: 100 percent of the unit

Geomorphic description:

Swale on flood plain

Flat on flood plain

#### 1006--Breaks And Alluvial Land

##### Component Description

Alluvial land

Extent: 50 percent of the unit

Geomorphic description:

Flat on flood plain

Swale on flood plain

Slope range: 0 to 1 percent

Breaks

Extent: 50 percent of the unit

Geomorphic description:

Hillslope on flood plain

Slope range: 0 to 3 percent

#### 1025--Dune Land

##### Component Description

Dune land

Kittson County, Minnesota  
Soil Descriptions - Non Technical  
Field Office Technical Guide Sec. II

PARTIALLY CERTIFIED DATA  
SUBJECT TO CHANGE  
07/24/2003

Extent: 100 percent of the unit  
Geomorphic description:  
Hillslope on beach plain

1053--Marsh

Component Description

Marsh

Extent: 100 percent of the unit  
Geomorphic description:  
Depression on lake plain  
Depression on beach plain

CW--Census Water

Component Description

Census water

Extent: 100 percent of the unit